The Excitement of Cancer Control Research
Division of Cancer Control and Population Sciences
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KAREN EMMONS:

I can't think of one single thing I'd rather do other than cancer prevention and control research. What is so amazing about this is the opportunity to take discoveries that had been developed in the basic science laboratories, and clinical research, and in epidemiology and turn those into things and actions that people can do, right now today, in order to reduce their risk of cancer.

BARBARA RIMER:

Well I think cancer control research is one of the most exciting parts of the entire healthcare spectrum, and the reason for that is we have an opportunity in cancer control directly to change the burden of cancer in this country, and ultimately in the world. The kinds of interventions that we develop can shift the population burden of cancer by getting people to stop smoking, to eat better diets, to get screened for cancer. We not only can decrease mortality from cancer, but we can also improve quality of life, and how many other fields can say that they can do that? And I think that that's the beauty of cancer control, but it's also the challenge of cancer control.

ROBERT CROYLE:

I think right now is an unusual time in the field of cancer control research, because we're learning, for the first time, how to integrate evidence and research from different levels of analysis: from the molecular level to physiological, neuroscience, behavioral issues, but also all the way up to policy, and more macro public health issues. So it's the integration of the science across these different levels which is really starting to revolutionize the field of cancer control.

ROBERT HIATT:

Cancer control really is defined by its interdisciplinarity, and the excitement, to me, comes from being able to work with people from many different academic and intellectual backgrounds.

JULIA ROWLAND:

It's really hard to pick one thing in cancer control to say I'm most excited about, because I think the field is huge; I think the areas in it are incredibly dynamic. I suppose, personally, what really pulled me into the field is the fascination with the individual.

SCOTT LEISCHOW:

Cancer control research is critically important, and it's exciting to me, because we have a real opportunity to prevent disease.

STEPHEN TAPLIN:

It's how do you take what we know and make it what we do? It's really that simple.

ROBERT CROYLE:

We have a lot of evidence now that tells us many of the elements that go into the decision making about cancer and factors that influence people's behavior about cancer: screening, or diet, or tobacco use. What we're really lacking at this point now is how to integrate all of these elements, how they interact with each other.

DAVID ABRAMS:

We would see a third of all cancer disappear from America if we could get every single person to stop smoking. So the exciting part of my research is to understand the mechanisms that cause addiction, and how to translate that into effective treatment and policy.

SCOTT LEISCHOW:

NCI's efforts on tobacco control are critically important and cover a broad range of areas. We do research on the discovery of methods that help people

quit smoking, or how to prevent children from starting smoking. We do research on how to understand how medications and how behavioral interventions work in the community.

JASJIT AHLUWALIA:

Work by our group and others has found that smoking typography of African American smokers is different, as well as the metabolism and the genetics as well. For example, the clearance of cotinine from the human body is slower in African American smokers, the extraction of nicotine per cigarette is higher in African Americans, and possibly the enzyme and genetic distribution of African American smokers is different than other smokers. The net result is -- is that we have a lot more to learn. And some of the questions that we're pursuing are difficult because they're not just at the cellular level, they're at the behavioral level, they're at the policy level, and they're at the population level.

JAMES SARGENT:

From a social cognitive perspective, the idea that kids see things in their movies, develop internal scripts, their attitudes change, and finally they adopt the behavior based on those scripts, it makes sense that seeing your favorite star smoke as an adolescent might cause you to be more favorably inclined towards smoking. Then you have to show that

there's an association between seeing smoking in movies and smoking. We've shown that very convincingly. You have to show that there's a dose response; we've shown that there's a dose response. The more smoking they see, the higher their risk.

RACHEL BALLARD-BARBASH:

One of the tremendous opportunities in evolution of the evidence over the last 10 / 15 years, is the continuing concordance of the evidence that these factors -- control of weight, increasing physical activity, and improving diet -- are critically important for multiple disease outcomes because, in fact, none of us deal only with one disease as we live our lives.

WALTER WILLETT:

I think the kinds of large prospective studies that we and others are conducting are, perhaps, uniquely positioned to look at a wide range of dietary factors over long periods of time, and that's really going to be necessary in order to fully understand the etiology of cancer.

WALTER WILLETT:

Now we have the opportunity to identify genetic predisposition to cancer, because we have DNA, and the technology, and the opportunities for identifying

individual susceptibilities to cancer. It's just growing dramatically, almost month by month.

HELEN MEISSNER:

I think the area of cancer screening research is really exciting because it's multifaceted and multidisciplinary. It involves investigators from epidemiology, behavioral sciences, clinical medicine, sociology, health policy. Screening involves so many different factors that ultimately influence the outcome.

KAREN EMMONS:

We know right now that there are things to improve the likelihood that people do not get colon cancer, for example, through screening efforts. One of the most important things we can do to increase the effectiveness of our prevention efforts is to disseminate what we know. There is so much that we know works well. The problem is, it's not getting out into our communities.

ROBERT HIATT:

The problem of health disparities is highly complex and requires interdisciplinary research and attention.

JASJIT AHLUWALIA:

And in the next 5 to 10 years, we need to understand that if we're going to an impact on the cancer mortality in this country we've got to target populations that are higher at risk.

MARIA FERNANDEZ:

With the new technologies that we have available to us, and also as we learn more about different groups and what motivates them to engage in behavior, we have a greater potential to both target interventions for specific populations and groups, and also to tailor interventions so that for each individual, they will be specific to that individual's needs.

ARNIE POTOSKY:

There are a lot of barriers out in the health care system that people face, and they come from a variety of sources. What our job in cancer control research and in health services research, is to better understand what those barriers are, and what prevents people from obtaining access to the best possible cancer prevention, screening, and treatment services.

STEPHEN TAPLIN:

I'm involved in a project that's funded by the Health Resources Service Administration called HRSA. They're working with the Bureau of Primary Care, and the Institute for Health Care Improvement, and the National Cancer Institute, and the Centers for

Disease Control: a huge collaboration of institutions to look at how do we take what we know in cancer control, and what we've learned over the last 15 years in cancer control, and make it happen.

MARTIN BROWN:

Ten years from now, people are going to say, "Did you find the solutions? Is the system functioning better? Did you make a difference?" We think the answer will be "Yes." And just to know that we're being asked to meet that kind of challenge, I think, is exciting.

JULIA ROWLAND:

One of the reasons that survivorship is not only exciting, but integral to our discovery process is we need to be finding out what the relationship is to our treatments and outcomes. It's not enough to develop treatments that are going to cure disease if we don't know what the consequence of that cure is going to be. What we know from our early research in survivorship is that very few of our treatments are benign, and the question is, "Can we develop tailored treatments that will reduce the harm to normal tissue, while at the same time, eradicating or eliminating the cancer cells. And that's part of the excitement.

TIMOTHY AHLES:

In the particular type of research we're doing, basic science is very important because the advances in imaging techniques are allowing us to begin to understand basic mechanisms for chemotherapy-induced cognitive changes. We are collaborating with basic scientists to develop an animal model for cognitive side effects of chemotherapy. So this is an area where clinical and basic science fit hand in glove.

BARBARA RIMER:

What we know is that most patients value information, they want to be involved in decision-making, and yet, there's a big disconnect between their preferences and the level of information that they get. We live in an information-rich world. The beauty of that is that information is all over. The challenge is to customize information and to get it to patients at a level that they need, when they need it.

KAREN EMMONS:

We need to do a better job of understanding how the community interprets the risk messages that we put out. Often we, as scientists, communicate with the population in the language that we understand and not the language that is familiar to them.

ROBERT CROYLE:

In the next 5 or 10 years, what we're really looking for are opportunities to inform policy makers through

the evidence that researchers generate. Right now, public health policy makers, people in the department, people in the roles of the city seat, Congress, White House, are really looking to us to inform them about where the best opportunities for investment are to increase public health and prevent cancer.